

(Vapour + Liquid) equilibria of the {1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea) + Isobutene (i-C<sub>4</sub>H<sub>8</sub>)} System

민세련, 윤용주, 임지훈, 김화용\*  
서울대학교  
(hwayongk@snu.ac.kr\*)

Since the regulation of chlorofluorocarbons (CFCs), alternative refrigerants having environmental benefits have been needed for the refrigeration system. The mixtures of hydrocarbons (HCs) and hydrofluorocarbons (HFCs) represent many advantages as new refrigerants. To examine thermodynamic properties, isothermal vapor liquid equilibrium data were carried out for the {1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)+ isobutene} in the temperature range from (273.15 K to 348.15 K) at 15 K intervals. The obtained data were fitted by the Peng-Robinson equation of state with the Wong-Sandler mixing rules. And the results show good agreements with the experimental data.